Model shown :
646-RC 186

55' dual line nozzle control hose c/w handle (included)

PORTABLE PRESSURE BLASTERS
MODELS 346/646

Pressure blaster with a tank capacity of 3.5 or 6.5 cubic feet and **1½" sandblast hoses.**

Standard pressure release (RC-176) dead man control systems, for greater safety. ISTblast's abrasive metering valves, MMV-175 or PMV-186, delivers a precise and easy abrasive flow.

The 346/646 blasting pots can be equipped with a standard pneumatic or electric 12V DC or 120V AC version with a dead-man control system.

If you require frequent start/stop operating flexibility the ISTblast RC186 Pressure hold system will be best suited to your needs.

MARKETS

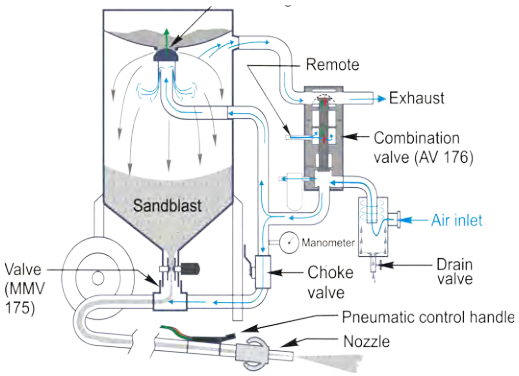
- General manufacturing
- Aerospace and aviation
- Marine
- Automotive
- Petroleum

FEATURES

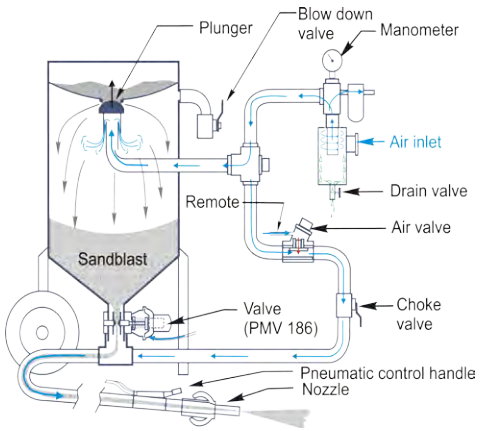
- ✓ Convex top for built-in filling funnel
- ✓ Removable plunger with no threads
- ✓ Durable sealing plunger
- ✓ Extra low profile
- ✓ Large handhole for easy access to inside of tank
- ✓ Lifting eyes
- ✓ Heavy duty piping
- ✓ Conical bottom
- ✓ Stabilizing support frame which eliminates wheel fatigue and pot tip over
- ✓ MMV-175 or PMV-186 abrasive regulator valve
- ✓ Large hard rubber wheels
- ✓ Air pressure gauge
- ✓ Water separator
- ✓ Heavy Duty construction ASME and CRN registration approved
- ✓ Made in Canada

PORTABLE PRESSURE BLASTERS MODELS 346/646 (CONT'D)

HOW IT WORKS



RC-176 Pressure Release System



RC-186 Pressure Hold System

ACCESSORIES & PARTS

AV-176 Combined valve

The AV-176 valve is a one piece combination inlet and outlet valve utilized to control compressed air supply into and out of the blast pot.

A single piston assembly is utilized to both open and close the valve's inlet and outlet sections simultaneously. The valve is operated by a pilot air signal received when the operator activates the AirStop Control Handle.

In its un-activated state, a return spring is used to compress a diaphragm against the valves inlet port, preventing compressed air from entering the blast pot or blast hose.

The PMV-186 abrasive regulator valve is design to shut of the flow of abrasive, at the metering valve , before the mixing port, eliminating the delay and wasted abrasive often found in a normallyopen metering valve.

Abrasive metering valve MMV-175

The abrasive metering valve MMV-175 is a simple design air valve that offers a wide range of adjustment of abrasive flow.

Specifications	P 346	P 646
Loading capacity (pi³ (A.S.M.E.)	3.5	6.5
Tank diameter	18"	24"
Sand Capacity (lbs)	300	600
Lenght	26"	32"
Height	46"	50"
Width	29"	35"
Weight (lbs)	225	350

KITS

The "S" kit includes :

(1) 50 feet high quality **1½ sandblast hose** with (1) tungsten carbide nozzle.

The "X" kit includes :

(1) Radex air purifier.

(1) 50 Feet of air hose to feed air between

(1) Nova 2000 air supplied

CHOOSE YOUR SANDBLASTING KIT

Example :

346RC-176 + **Kit "S"** + **Kit "X"**

Machine type				Remote control			Accessories kit	
346 Stock #	646 Stock #	Model		Pneum.	Electr. 12 V	Electr. 120 V	"S"	"X"
646401	656401	346 RC-176	646 RC-176	X			734600	735000
646501	656501				X		734600	735000
646601	656601					X	734600	735000
647401	657401	346 RC-186	646 RC-186	X			734600	735000
647501	657501				X		734600	735000
647601	657601					X	734600	735000

ABRASIVE METERING VALVE TYPE PMV-186

The PMV-186 abrasive regulator valve is design to shut of the flow of abrasive, at the metering valve , before the mixing port, eliminating the delay and wasted abrasive often found in a normally open metering valve.

PERFORMANCE REPORT

BACKGROUND

On 12/12/2009, a ISTblast PMV-186 Metering Valve was installed in a controlled environment to evaluate the durability of the valve under certain blasting conditions. The valve provided by ISTblast was pulled from regular inventory and was used under the controlled facility's normal blasting conditions with no preventative maintenance being performed on the valve while it was installed. The valve performed to specification until 03/0912010 at which time it was removed and returned to ISTblast for inspection. This report details the findings of that inspection.

BLASTING CONDITIONS

- Abrasive : 120 Aluminium Oxide
- Pressure : 90-120 PSI
- Schedule : Shifts running 24/7

CAUSE OF FAILURE

After complete disassembly and careful inspection, ISTblast determined the failure of the valve was caused by the plunger seals wearing out (See Photo A).

NORMAL WEAR AND TEAR

Aside from the seal failure, the valve was in excellent condition showing only minimal signs of normal wear and tear. Both the Plunger (See Photo B) and Sleeve (See Photo C) show only minimal signs of wear and tear and are both in perfect working order.The Urethane Seat was completely intact and showed signs of normal wear (See Photo D). The Metering

REPAIR COST

To return the valve to complete working order, all components of the valve were cleaned, moving parts were lubricated, a seal kit was installed, and the valve was reassembled and tested. The seal kit (PN : 2148-000-98), has a list price of $55.50. With the valve installed for 87 days (approximately 261 eight-hour shifts) the operating cost of the valve is calculated to be $0.2123 per 8 hour shift.

CONCLUSIONS

Based on the disassembly and reassembly of this valve, ISTblast finds that the APVII Metering Valve used in this controlled environment is a typical example of a ISTblastPMV-186 Valve and represents typical performance that can be expected under their blasting conditions. With regular recommended maintenance (cleaning and lubrication every 90 eight-hour shifts) it may be possible to extend the life of the seals significantly.

A

Shows inner edge worn out causing seat to fail.

B

Only minimal signs of wear showing on plunger.

C

Only minimal signs of wear showing on sleeve.

D

Urethane Seat (left) is completely intact with normal wear. Stainless Steel Insert (right) shows no signs of wear.

E

Metering Valve **Nipple 1½** shows only minimal wear.

NOZZLE, COUPLING & AUTOMATIC AIR VALVE

Nozzle

Coupling

Automatic Air Valve

FULL FLOW SYSTEM

MAX BLAST series Full Flow System is available on our PPB Series line of blast pots or as an upgrade to your existing PPB blast system.

Testing Reveals 36 - 40.5% Performance Increase !

WHAT WE DID

In a real world environment, we switched out standard components for MAXblast components - Auto Air Valve, Couplings and 1¼" to 1½" Blast Hose.

WHAT WE SAW

Increase pressure at the nozzle - 24 to 27 psi.

WHAT THAT MEANS

After switching to the MAXblast Full Flow System, there was a 36-40.5 % increase productivity[1]. These numbers range because we tested across different outlets.

Blasting Setup Details	Nozzle	Hose Lenght	Inlet Pressure	Couplings	Blst Hose	Automatic Air Valves	Pressure at nozzle	Pressure Loss	Increase in Productivity
Baseline Setup	#7 1¼" Entry	150'	124 psi	Standard	1¼"	Std. 1½"	90 psi	34 psi	N/A
Switched output Couplings				**MAXblast**	**1¼"**	**Std. 1½"**	**93 psi**	**31 psi**	**4.5 %[1]**
Full MAXblast System (tested on 2 outlets)					**1½"**	**MAXblast**	**114-117 psi**	**7-10 psi**	**36-40.5 %**

1 - Productivity increase based on standard that 1 psi of increased blasting pressure = 1.5 % increase in blasting productivity.

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